

**REMARKS**

Attached hereto is a marked up version of the changes made to the specification by this amendment. The attachment is captioned "**Version With Markings to Show Changes Made.**"

Reconsideration and withdrawal of the restriction requirement is respectfully requested in view of the remarks herewith.

The June 15, 2001 Office Action required restriction under 35 U.S.C. 121 from among:

- Group 1: Claims 1-6, 9-14, 17-21, drawn towards an unusual retrotransposon (pCal), transposable elements and fragments derived therefrom, expression vectors, DNA transfer system and retroviral-like carrier system, classified in class 536, subclass 23.1.
- Groups 2-79: Claims 1-6 and 23, each group drawn to one of a series of putative retrotransposon sequences described in Figures 17-48 and 71 (SEQ ID NOS: 6-37 ad 99-144), classified in class 536, subclass 23.1.
- Group 80: Claims 7-8, drawn to methods of introducing DNA into the genome of a cell, classified in class 435, subclasses 455, 471.
- Group 81: Claims 15-16 and 25-26, drawn to methods of gene disruption or altered expression/gene mapping comprising integrating a retrotransposon into the host cell genome, classified in class 435, subclass 6.
- Group 82: Claim 22, drawn to a promoter isolated from a retrotransposon, classified in class 636, subclass 24.1.
- Group 83: Claim 24, drawn to a method of assigning function to unknown sequence, classified in class 435, subclasses 6, 69.1.
- Group 84: Claims 27-31, drawn to methods of using immunological, immunogenic, vaccine or therapeutic compositions comprising an isolated retrotransposon, classified in class 514, subclass 44.
- Group 85: Claim 32, drawn to a method of detecting Candida comprising detecting the presence in a sample of a retrotransposon, classified in class 435, subclass 34.

Applicants provisionally elect, with traverse, for further prosecution in this application, the invention of Group 1, Claims 1-6, 9-14 and 17-21, drawn to an unusual retrotransposon (pCal), transposable elements and fragments derived therefrom, expression vectors, DNA transfer system and retroviral-like carrier system, classified in class 536, subclass 23.1.

Applicants further request that SEQ ID NOs. 113, 114 and 115, corresponding to the *Candida albicans* Tca3 retrotransposon 14, comprising the *pol* protein and fragments 1 and 2 thereof (see also Figures 71 and 72), be searched and examined as part of Group 1. With respect to these sequences, it is respectfully requested that the Examiner kindly note PCT Administrative Example 17 (quoted below), wherein a claim to DNA encoding protein X and another claim to protein X are deemed to have unity.

Example 17

Claim 1: Protein X

Claim 2: DNA sequence encoding protein X.

Expression of the DNA sequence in a host results in the production of a protein which is determined by the DNA sequence. The protein and the DNA sequence exhibit corresponding special technical features. Unity between claims 1 and 2 is accepted.

In this case, SEQ ID NOs 114 and 115 are protein fragments encoded by the gene of SEQ ID NO 113. Indeed, Figure 72 demonstrates the homology between sequences listed in this application and argues for a search and examination of all the sequences. Surely a search for the sequence of a retrotransposon and its corresponding protein would encompass the sequences of other, similar retrotransposons as shown in Figure 72. Therefore, it is respectfully submitted that search and examination of all of the sequences would not pose an undue burden to the Examiner.

It is noted that the MPEP lists two criteria for a proper restriction requirement. First, the inventions must be independent or distinct, MPEP § 803. It is respectfully submitted that the claims herewith all comply with Group 1.

Second, searching the additional inventions must constitute an undue burden on the examiner if restriction is not required. *Id.* The MPEP directs the examiner to search and examine an entire application “[i]f the search and examination of an entire application can be made without serious burden, ...even though it includes claims to distinct or independent inventions.” *Id.*

Each of the claims is tied together by the single inventive concept of a novel retrotransposon from the pathogenic yeast *Candida albicans*. Claims 1-6, 9-14, 17-23 and 27-29 are product claims, whereas Claims 7-8, 15-16, 24-25 and 30-32 are method claims.

The method claims are tied to the product claims and thus **must** be searched and examined together in this application, pursuant to the February 28, 1996 “Guideline on Treatment of Product and Process Claims ...”, published at 1184 TMOG 86 (March 26, 1996)

and MPEP §821.04, as Claims 15, 16, 24 and 32 encompass method claims dependent upon or involving the product claims, Claims 1-6, 9-14 and 17-21.

As such, there is evidence that the present claims have unity of invention, are directed to a single inventive concept, and present no serious or undue burden to search and examine entirely within this application.

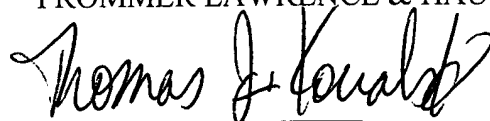
TCa2 is a *Tyl/copia* retrotransposon from the pathogenic yeast *Candida albicans*. In contrast to other retrotransposons it can appear as an abundant, extrachromosomal double-stranded DNA molecule, called pCal. The invention relates to the isolation and characterization of TCa2 and pCal together with its uses for inducing random mutagenesis in a genome, as a component of a transposable element and of an expression vector.

The present claims, therefore, represent a web of knowledge and continuity of effort that merits examination in a single application. Indeed, the claims of Groups 1 and 2-79 are related since the claims of both groups are classified in class 536, subclass 23.1 and the sequences of Groups 2-79 correspond to the Group 1 products. The claim of Group 82 is also classified in class 536, relating it to the claims of Groups 1-79. The claims of Groups 80, 81, 83 and 85 are related to one another, since the claims in all four groups are classified in class 435. Further, the method claims of Groups 81, 83, and 85 are related to and dependent upon the product claims of Group 1. Finally, the claims of Group 84 (Claims 27-31) relate to a composition and dependent methods involving the products of Group 1. Indeed, all the claims are directed to a novel retrotransposon, pCal, which belongs to the *Tyl/copia* group.

It is thus respectfully submitted that the claims herewith are subject to being searched and examined together, and that a search of all the claims now presented does not pose a serious or undue burden upon the Examiner. Accordingly, it is further respectfully submitted that the restriction requirement was improper and that with this election and new claim set, all of the new claims, including the new methods, should be searched, examined and rejoined.

Respectfully submitted,  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

Paragraph beginning on page 22, line 7 is amended as follows:

Figure 72 is an overview table of SEQ ID NOs 100-144[(SEQ ID NOs: 99-144)].